

REMARKS

In response to the final Office Action of July 9, 2008, applicants ask that all claims be allowed in view of the amendments to the claims and the following remarks. Claims 1-37 are pending, with claims 1, 11, 17, 26, 27, 32, 34, and 37 being independent. Claims 1 and 3 have been amended, and claims 30-37 have been added. Support for the amendments and the new claims is found in the originally filed application at, for example, page 5, line 15 to page 7, line 16; Fig. 2; and Fig. 3. No new matter has been added.

Initially, applicants acknowledge with appreciation Examiner Smith's indication that claims 11-22, 26, and 27 are allowed and that claims 7-10 recite allowable subject matter.

Claim Rejections—35 U.S.C. § 103

Amended independent claim 1 recites a position indicator. The position indicator includes a position indicator display and mechanism and a polymer housing that includes the position indicator display and mechanism. A ring formed on an inner surface of the polymer housing is in contact with at least part of the position indicator display and mechanism.

Rejections over Simpson, Norwood '952, and Albeanese

Claims 1-6, 23-25, 28, and 29 have been rejected as being unpatentable over U.S. Patent No. 3,092,071 (Simpson) in view of U.S. Patent No. 4,532,932 (Norwood '952) and U.S. Patent No. 3,666,340 (Albeanese).

Applicants request reconsideration and withdrawal of this rejection because neither Simpson, Norwood '952, Albeanese, nor any proper combination of the three describes or suggests a polymer housing that includes a position indicator display and mechanism, where a ring formed on an inner surface of the polymer housing is in contact with at least part of the position indicator display and mechanism, as recited in amended claim 1.

In Simpson, a device 10 has a movable part 11 that may occupy a variety of positions. See Simpson at col. 2, lines 57-59 and Fig. 1. A remote indicator 20, which includes a housing 21 and a pointer 23 mounted on a dial face 22 to display the movement of the movable part 11,

displays the movement of the movable part 11 on a dial face 22. See Simpson at col. 3, lines 3-9 and Fig. 2. The pointer 23 is attached to and moves with a shaft 24, which is connected to spokes 25 of a Geneva wheel 26. See Simpson at col. 3, lines 9-11. The shaft 24 may be rotatably supported by bearings 17 and 18. See Simpson at col. 3, lines 11-12 and Fig. 2.

The Office appears to equate the pointer 23, the shaft 24, and the Geneva wheel 26 of Simpson with the recited position display indicator and mechanism. See the Office Action at page 2, section 2. First, even assuming that Simpson's pointer 23, the shaft 24, and the Geneva wheel 26 could somehow be equated with the recited position indicator display and mechanism, Simpson's housing 21 does not include a ring formed on an inner surface of the housing 21, much less a ring formed on the inner surface of the housing 21 that is in contact with any of these elements. As shown in Figure 2 of Simpson, neither the Geneva wheel 26 nor the pointer 23 are in contact with the housing 21 at all. Second, the shaft 24 is not in contact with a ring formed on the inner surface of the housing 21. Instead, the shaft 24 is supported by the bearings 17 and 18 (see Simpson at col. 3, lines 11-12 and Fig. 2), and there is no indication that either of the bearings 17 and 18 are rings formed on an inner surface of the housing 21.

Accordingly, Simpson does not describe or suggest a polymer housing that includes a position indicator display and mechanism, where a ring formed on an inner surface of the polymer housing is in contact with at least part of the position indicator display and mechanism, as recited in amended claim 1.

Neither Norwood '952 nor Albeanese remedy the failure of Simpson to describe or suggest the noted feature of amended claim 1.

Norwood '952, which is cited as showing a polymer housing and a two-piece polymer cover enclosing a controller in the housing (see the Office Action at page 4), discloses a controller for well installations that may be operated in severe environments, such as off-shore production facilities. See Norwood '952 at col. 4, lines 5-9. Operator inputs to the controller 60 are provided by the keypad 130 (see Norwood '952 at col. 11, lines 16-18), and a front cover 116 hingedly closes over an operational surface of the housing 112 in a water tight fashion against the housing 110 (see Norwood '952 at col. 10, lines 51-54). However, there is no indication that

the controller 60 includes a position indicator display and mechanism, and, thus, the housing 112 does not include a position indicator display and mechanism. Moreover, there is no indication that a ring is formed on an inner surface of the housing 112 that could be in contact with at least part of such a position indicator display and mechanism.

Accordingly, Norwood '952 also does not describe or suggest a polymer housing that includes the position indicator display and mechanism, where a ring formed on an inner surface of the polymer housing is in contact with at least part of the position indicator display and mechanism, as recited in amended claim 1.

Like Simpson and Norwood '952, Albeanese does not describe or suggest the noted feature of claim 1. Rather, Albeanese, which is cited as showing a one-piece clear polymer cover, discloses a container for enclosing various types of equipment. See Albeanese at col. 3, lines 19-21. The container 10 includes a cover 11 that is hinged to a rear wall 13 and the cover 11 is detachably secured to an upper edge of a front wall 15 of the container at three positions on the container 10 by bolts and wing nuts. See Albeanese at col. 3, lines 44-48 and Fig. 1. Instruments within the enclosure are supported by a supporting plate 31, which includes openings for the reception of various instruments. See Albeanese at col. 4, lines 71-73 and col. 5, lines 7-11. However, as shown in Figure 3 of Albeanese, rather than being formed on an inner surface of the container 10, the supporting plate 31 is separate from both the rear wall 13 and the front wall 15 of the container 10.

For at least these reasons, claim 1 is allowable over any proper combination of Simpson, Norwood '952, and Albeanese, as are dependent claims 2-6, 23-25, 28, and 29.

Rejections over Simpson, Norwood '617, and Albeanese

Claims 1-6, 23-25, 28, and 29 have been rejected as being unpatentable over Simpson in view of U.S. Patent No. 4,916,617 (Norwood '617) and Albeanese. Applicant requests withdrawal of this rejection because neither Simpson, Norwood '617, Albeanese, nor any proper combination of the three describes or suggests a polymer housing that includes a position indicator display and mechanism, where a ring formed on an inner surface of the polymer

housing is in contact with at least part of the position indicator display and mechanism. As discussed above, neither Simpson nor Albeanese describes or suggests the noted features of claim 1. Norwood '617 also does not describe or suggest the noted features of claim 1.

Norwood '617 relates to a controller 10 that is contained within a water-tight housing, which is, for the most part, configured as described in Norwood '952.¹ See Norwood '617 at col. 6, lines 39-45. A hinged front cover closes over the operational surface of a circuit housing or module 14, which carries the circuitry of the controller 10, against a housing component 12. See Norwood '617 at col. 6, lines 52-55. The module 14 is retained in the housing by screws 16 that are located at the corners of the module. See Norwood '617 at col. 6, lines 48-50 and Fig. 1. However, there is no indication that the controller 10 or the module 14 includes a position indicator display and mechanism, or that Norwood's housing has a ring formed on an inner surface of the housing that could be in contact with such a position indicator display and mechanism.

Accordingly, Norwood '617 also does not describe or suggest a polymer housing that includes a position indicator display and mechanism, where a ring formed on an inner surface of the polymer housing is in contact with at least part of the position indicator display and mechanism, as recited in amended claim 1. Accordingly, claim 1 is allowable over any proper combination of Simpson, Norwood '617, and Albeanese, as are its dependent claims 2-6, 23-25, 28, and 29.

Moreover, the dependent claims recite allowable subject matter in their own right. For example, dependent claim 2 recites that the hand-operated fastening device includes a latch, and the latch secures the one-piece polymer cover to the polymer housing such that the one-piece polymer cover can be opened without the use of tools. As discussed above, neither Simpson, Norwood '952, Norwood '617, nor Albeanese describe or suggest a polymer housing that includes a position indicator display and mechanism, where a ring formed on an inner surface of the polymer housing is in contact with at least part of the position indicator display and

¹ Applicants note that column 6, lines 42-45 of Norwood '617 indicates that "[t]his housing is, for the most part, configured as described in U.S. Pat. No. 4,532,052 by Norwood, issued Aug. 6, 1985, and assigned in common herewith." Applicants believe that this portion of Norwood '617 refers to Norwood '952 because Norwood '952 issued on August 6, 1985. In contrast, U.S. Patent No. 4,532,052 issued on July 30, 1985 and is to Weaver.

mechanism, as recited in independent claim 1. Thus, none of these references describe or suggest a latch that secures a one-piece polymer cover to such a polymer housing such that the one-piece polymer cover can be opened without the use of tools.

New Claims 30-37

New claims 30 and 31

New claims 30 and 31 depend from claim 1 and are allowable for at least the reasons that claim 1 is allowable and for reciting allowable subject matter in their own right. For example, new dependent claim 30 recites that the position indicator further includes a hinge connected to the one-piece polymer cover and the polymer housing. As discussed above, neither Simpson, Norwood '952, Norwood '617, nor Albeanese describes or suggests a polymer housing that includes a position indicator display and mechanism, where a ring formed on an inner surface of the polymer housing is in contact with at least part of the position indicator display and mechanism, as recited in independent claim 1. Accordingly, none of these four references describes or suggests a hinge connected to a one-piece polymer cover and such a polymer housing. New claim 30 is allowable for at least this additional reason.

New claims 32 and 33

New independent claim 32 recites, among other features, a polymer housing that includes a position indicator display and mechanism, where a ring formed on an inner surface of the polymer housing is in contact with at least part of the position indicator display and mechanism. Thus, new independent claim 32 is believed to be allowable for reasons similar to those discussed above with respect to claim 1. New claim 33 depends from claim 32 and is believed to be allowable for at least the reasons that claim 32 is allowable.

New claims 34-36

New independent claim 34 recites, a position indicator that includes a polymer housing to house the position indicator display and mechanism, a one-piece polymer cover configured to

enclose the position indicator display and mechanism in the polymer housing, a limit switch, and a limit switch adjuster that holds the limit switch and further includes integrated functionality to constrain the limit switch adjuster in the polymer housing without fasteners. Neither Simpson, Norwood '952, Norwood '617, nor Albeanese describes or suggests such a position indicator. For example, none of these four references appears to describe or suggest at least a limit switch adjuster that holds the limit switch and further includes integrated functionality to constrain the limit switch adjuster in the polymer housing without fasteners. New dependent claims 35 and 36 depend from independent claim 34 and are allowable for at least the reasons that claim 34 is allowable.

New claim 37

New independent claim 37 recites a position indicator. The position indicator includes a position indicator display and mechanism, a polymer housing that includes the position indicator display and mechanism, a one-piece clear polymer cover configured to enclose the position indicator display and mechanism in the polymer housing, a hinge connected to the one-piece polymer cover and the polymer housing, and a hand-operated fastening device that secures the one-piece clear polymer cover to the polymer housing such that an interaction between the one-piece clear polymer cover and the polymer housing creates a seal between the one-piece clear polymer cover and the polymer housing. The one-piece clear polymer cover can be rotated about the hinge, and the one-piece clear polymer cover is secured to the polymer housing at a single access point.

Neither Simpson, Norwood '952, Norwood '617, Albeanese, nor any proper combination of the four describes or suggests a one-piece clear polymer cover configured to enclose a position indicator display and mechanism in the polymer housing, and a hinge connected to the one-piece polymer cover and the polymer housing, where the one-piece polymer cover is secured to the polymer housing at a single access point, as recited in claim 37.

As conceded on page 3 of the final Office Action, Simpson does not describe or suggest a one-piece clear polymer cover, a polymer housing, or a hinge. Thus, Simpson does not describe

or suggest a one-piece clear polymer cover configured to enclose the position indicator display and mechanism in the polymer housing, and a hinge connected to the one-piece polymer cover and the polymer housing, where the one-piece polymer cover is secured to the polymer housing at a single access point, as recited in claim 37.

Realizing that Simpson lacks the noted features of claim 1, the Office cites Norwood '952 as disclosing a polymer housing and a two-piece polymer cover and Albeanese as somehow disclosing a transparent one-piece polymer cover, suggesting that it would have been obvious to modify the two-piece cover in Norwood '952 with the cover 11 in Albeanese to be a clear one-piece polymer cover. See final Office Action at pages 4-5. Finally, the Office suggests that it would have been obvious to modify Simpson to include a polymer housing, a one-piece clear polymer cover, a hinge, a latch, and a hand-operated fastening device that would secure such a cover to the polymer housing to create a seal between the one-piece polymer cover and the polymer housing. See final Office Action at pages 4-5. Applicant disagrees that such a modification would have been obvious.

First, even if Norwood '952, Norwood '617, and Albeanese somehow disclose the features that the Office concedes Simpson lacks, it would not have been obvious to modify Simpson to include these features because doing so would amount to a substantial redesign of Simpson. Modification of Simpson to include the features of claim 1 would require that the housing 20 of the indicator 21 be made from a polymer, a one-piece polymer cover be attached to the housing 20, a hinge attached to the one-piece polymer cover and the housing 20, and a hand-operated fastening device be attached to the housing 20. Such changes would amount to a substantial redesign of Simpson's position indicator. Thus, it would not have been obvious to modify Simpson to include such features.

Second, like Simpson, neither Norwood '952, Norwood '617, nor Albeanese describes or suggests a one-piece clear polymer cover and a hinge connected to the one-piece clear polymer cover and a polymer housing, where the one-piece clear polymer cover is secured to the polymer housing at a single access point.

As discussed above with respect to claim 1, the cover 116 of Norwood '952 is a two-piece cover, and it would not have been obvious to modify the cover 116 of Norwood '952 to be a one-piece polymer cover because doing so would render the cover 116 unsatisfactory for its intended purpose, and, thus, would not have been an obvious modification. See MPEP § 2143.01(V). Accordingly, Norwood '952 does not describe or suggest a one-piece clear polymer cover configured to enclose a position indicator display and mechanism in a polymer housing nor would it be obvious to modify Norwood '952 to include such a feature.

Similarly, and as conceded at pages 8 and 9 of the final Office Action, Norwood '617 does not describe or suggest a one-piece clear polymer cover configured to enclose a position indicator display and mechanism in a polymer housing. Moreover, it would not have been obvious to modify Norwood '617 to include a one-piece clear polymer cover.

In Norwood '617, a hinged front cover closes over the operational surface of a module 14 against housing component 12. See Norwood '617 at col. 6, lines 52-55. However, as indicated at page 8 of the final Office Action, the cover is not a clear polymer cover. The final Office Action suggests that it would have been obvious to modify Norwood '617 to include a clear polymer cover "to allow the user to view the display readout 42 in Norwood '617 without having to open the cover." Applicant disagrees that it would have been obvious to modify Norwood '617 in this manner because the operator in Norwood '617 views the readout 42 with the cover open as the operator enters data into a keypad 44.

The controller 10 in Norwood '617 includes an 8-digit liquid crystal display 40 and a corresponding readout 42 (see Norwood '617 at col. 8, lines 9-12), which perform in conjunction with a communicator provided as an 8-key keypad 44 (see Norwood '617 at col. 12-14). For example, where a variable of the controller 10 is changeable at the site of the controller 10, the operator depressing right and left arrow keys 48 and 49 on the keypad 44 moves a cursor of the display 42, and then the operator can change the value of the variable by pressing an up arrow key 50 or a down arrow key 51. See Norwood '617 at col. 8, lines 32-34. Upon depression of key 46 on the keypad 44, a given variable title will be displayed at output 42 while the numerical value of that variable will be displayed at output 42. Thus, in Norwood '617, the operator opens

the cover to adjust the controller and views information about the controller on the display 42 while operating the keypad 44 with the cover open. Accordingly, because the display 42 is viewed while the keypad 44 is operated, which occurs when the cover is open, it would not have been obvious to modify the cover in Norwood '617 to be a clear cover so that the display 42 could be viewed without opening the cover.

Thus, Norwood '617 does not describe or suggest a one-piece clear polymer cover configured to enclose the position indicator display and mechanism in the polymer housing, and a hinge connected to the one-piece polymer cover and the polymer housing, as recited in claim 37. Moreover, it would not have been obvious to modify Norwood '617 to have such a cover.

Finally, Albeanese does not describe or suggest a one-piece clear polymer cover configured to enclose the position indicator display and mechanism in the polymer housing and a hinge connected to the one-piece polymer cover and the polymer housing, where the one-piece clear polymer cover is secured to the polymer housing at a single access point.

Albeanese discloses a container for enclosing various types of equipment. See Albeanese at col. 3, lines 19-21. The container 10 includes a cover 11 that is hinged to a rear wall 13 and the cover 11 is detachably secured to an upper edge of a front wall 15 of the container by bolts and wing nuts at three positions on the container 10. See Albeanese at col. 3, lines 44-48 and Fig. 1. The cover 11 is retained in a closed position by means of bolts 16 and wing nuts 17 that are provided at three sides of the container, and by tightening of the wing nuts on their respective bolts, the cover 11 is forced downwardly upon a gasket 23 to effect a seal of the container. See Albeanese at col. 4, lines 21-26.

The cover 11 is the element of Albeanese that most closely resembles the recited one-piece clear polymer cover. However, the cover 11 cannot be equated to the recited one-piece clear polymer cover. First, the cover 11 is secured to the container at three positions rather than at a single access point. Second, the cover 11 is not a one-piece clear polymer cover. Rather, the "walls and top and bottom cover of the container are preferably constructed of layers of Fiberglas material, which have been treated with a suitable adhesive agent to retain the Fiberglas in its intended condition to form the container." See Albeanese at col. 3, lines 52-56. Albeanese

also mentions that other materials can be used, but Albeanese does not disclose that a clear material is used for the cover 11 or the walls of the container 10. Rather, Albeanese merely mentions that "such other materials should be air impervious." See Albeanese at col. 3, lines 59-60. In contrast, when Albeanese uses a clear material, Albeanese specifically says that the material is transparent. For example, the container 10 can include a transparent plate 27 located below the cover 11. See Albeanese at Fig. 3. Additionally, Albeanese indicates that "with the reading faces of the instruments mounted ... facing the transparent plate 27 at the upper end of the container, one may readily observe the readings of the instruments by the mere opening of the cover 11." See Albeanese at col. 5, lines 25-29. Thus, the cover 11 must be removed to observe the instruments that are positioned below the transparent plate 27, which indicates that the cover 11 is not made of a clear material.

At page 8 of the final Office Action, the Office cites to column 4, lines 65-66 of Albeanese as somehow showing a one-piece cover that is transparent. However, this portion of Albeanese discusses a fixed transparent plate rather than the hinged cover 11. In particular, this portion of Albeanese discloses that

[t]he upper portion of the front, rear and side walls of the container are formed with a ledge 26 which extends completely around the container and serves to support a transparent plate 27 formed of any suitable material. ...

The flanges 21 on the cover and the flanges 22 on the walls of the container are provided so that an area will be available for the placement of the gasket between these parts, and the ledge 26 at the upper portion of the walls will likewise present a surface for the reception of a gasket which is interposed between it and the transparent cover or plate without diminishing the area 29 which serves to house the measuring and/or testing instruments.

See Albeanese at col. 4, lines 44-47 and lines 60-67.

Thus, the transparent cover or plate referred to in the cited portion of Albeanese is the transparent plate 27 rather than the cover 11. As shown in Figure 3 of Albeanese, the transparent plate 27 is fixed rather than being a cover that is connected to a hinge. Although in one aspect of Albeanese, a transparent partition 48, which is beneath the cover 11, is connected to a hinge (see Albeanese at col. 5, lines 69-74 and Fig. 9), the partition 48 cannot be equated with the recited one-piece clear polymer cover. First, in the design shown in Figure 9 of Albeanese, the cover 11 is present and used to seal the container and to provide a storage compartment 44 (see Albeanese at col. 6, line 27-29 and Fig. 9). One of ordinary skill in the art would have been deterred from

modifying the design shown in Figure 9 of Albeanese to eliminate the cover 11 because the “container shown in FIG. 9 . . . presents numerous advantages in that the storage compartment 44 offers ample space for storing spare instruments or parts, and by reason of the fact that this portion of the container is rendered air, water, oil, or dust-free.” See Albeanese at col. 6, lines 26-30. Second, bolts 50 and 16 (which secure the partition 48) are provided on three sides of the partition 48. See Albeanese at col. 6, lines 24-27 and Fig. 9. Accordingly, the partition 48 is not secured to the container 10 at a single access point. Thus, like the cover 11, Albeanese’s partition 48 shown in Figure 9 and discussed in the accompanying text cannot be equated to the recited one-piece clear polymer cover.

Accordingly, neither Simpson, Norwood ‘952, Norwood ‘617, nor Albeanese describes or suggests a one-piece clear polymer cover configured to enclose the position indicator display and mechanism in the polymer housing, and a hinge connected to the one-piece polymer cover and the polymer housing, where the one-piece clear polymer cover is secured to the polymer housing at a single access point, as recited in new independent claim 37. Moreover, it would not have been obvious to modify these references to include such a feature.

For at least these reasons, applicants submit that claim 37 is allowable over these four references and any proper combination of these four references.

Conclusion

Applicants submit that all claims are in condition for allowance.

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicant : Augusto D. Hernandez et al.
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Pursuant to 37 CFR §1.136, applicants hereby petition that the period for response to the Office Action dated July 9, 2008, be extended for two months to and including December 9, 2008.

Fees in the amount of \$2,156 in payment for the Petition for Extension of Time fee (\$490) and the Excess Claims fee (\$416), the independent claims in excess 3 (\$440) and the RCE fee (\$810) are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. No additional fee is believed due. Nonetheless, please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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